What Is Claimed Is:

1. A converter system, comprising
- at least one supply module VM, which provides a unipolar, intermediate circuit voltage;
- one or more drive modules AM, which may be powered by the intermediate circuit voltage and each include at least one inverter for powering at least one electric motor, in particular a synchronous motor or an asynchronous motor; and
- at least one buffer module PM for storing energy.

2. The converter system as recited in at least one of the preceding claims,
wherein the buffer module may be supplied with energy for periods of time, in particular during the regenerative operation of at least one drive module, and stored energy may be subsequently released to at least the drive modules.

3. The converter system as recited in at least one of the preceding claims,
wherein at least one supply module VM includes a rectifier 1 for generating d.c. voltage from an a.c. voltage, in particular from a three-phase a.c. network voltage.

4. The converter system as recited in at least one of the preceding claims,
wherein at least one supply module VM includes a feedback unit, or a feedback unit may be connected to the intermediate circuit voltage and the a.c. voltage, in particular to a three-phase a.c. network voltage.

5. The converter system as recited in at least one of the preceding claims,
wherein at least one supply module VM includes an electronic circuit breaker T1, which allows passage of or blocks current induced by the intermediate circuit voltage and in the direction of a device connected to an output BRC of the supply

module, as a function of the activation 3 of the electronic circuit breaker T1.

6. The converter system as recited in at least one of the preceding claims,
wherein the drive circuit 3 of the electronic circuit breaker T1 is connected to a means 2 for measuring the intermediate circuit voltage.

7. The converter system as recited in at least one of the preceding claims,
wherein the buffer module PM includes a capacitor, whose capacitance is greater than the sum of that of all the capacitors to which the intermediate circuit voltage is directly applied.

8. The converter system as recited in at least one of the preceding claims,
wherein the supply-module VM capacitor directly connected to the intermediate circuit and a capacitor contained by the buffer module PM are sized so that during motive operation at nominal load, with the capacitor of the buffer module directly connected to the intermediate circuit, the a.c. voltage component of the intermediate circuit voltage would be less than half as large as the a.c. voltage component with the buffer module removed together with the capacitor.

9. The converter system as recited in at least one of the preceding claims,
wherein as a device connected to an output BRC of the supply module VM, the buffer module PM includes a capacitor, whose charging current may be influenced and/or controlled by at least the electronic circuit breaker T1.

10. The converter system as recited in at least one of the preceding claims,

wherein the buffer module PM includes at least one electrolytic capacitor.

11. The converter system as recited in at least one of the preceding claims,
wherein the buffer module PM and the supply module VM are each manufactured separately, so that they each have their own housing.

12. The converter system as recited in at least one of Claims 1 through 10,
wherein the buffer module PM and the supply module VM are integrated in the form of a buffer/supply module PVM and constructed in a single housing.

13. The converter system as recited in Claim 12,
wherein the buffer-supply module PVM includes an electronic circuit breaker T1, which allows passage of or blocks current induced by the intermediate circuit voltage and in the direction of a device, as a function of the activation 3 of the electronic circuit breaker T1.

14. The converter system as recited in at least one of the preceding claims,
wherein the drive circuit 3 of the electronic circuit breaker T1 is connected to a means 2 for measuring the intermediate circuit voltage.

15. The converter system as recited in at least one of the preceding claims,
wherein the drive circuit 3 of the electronic circuit breaker T1 is connected to a means 33 for measuring the intermediate circuit current.

16. The converter system as recited in at least one of the preceding claims,

wherein the buffer module PM includes a capacitor C2, of which the capacitance is greater than the sum of that of all the capacitors to which the intermediate circuit voltage is directly applied.

17. The converter system as recited in at least one of the preceding claims,
wherein the supply-module VM capacitor directly connected to the intermediate circuit and a capacitor contained by the buffer module PM are sized so that during motive operation at nominal load, with the capacitor of the buffer module directly connected to the intermediate circuit, the a.c. voltage component of the intermediate circuit voltage would be less than half as large as the a.c. voltage component with the buffer module removed together with the capacitor.

18. The converter system as recited in at least one of the preceding claims,
wherein the device the buffer module PMV includes a capacitor, of which the charging current may be influenced and/or controlled by at least the electronic circuit breaker T1.

19. The converter system as recited in at least one of the preceding claims,
wherein the buffer module PMV includes at least one electrolytic capacitor.

20. The converter system as recited in at least one of the preceding claims,
wherein the buffer module PMV includes a second electronic circuit breaker T2 and a corresponding drive circuit 32, which is at least connected to means for measuring voltage 23, and the supply of current to a braking resistor being able to be influenced by the second electronic circuit breaker T2.

21. A converter system,
wherein, to form the converter system,

- at least one supply module VM, which provides a unipolar, intermediate circuit voltage;
- one or more drive modules AM, which may be powered by the intermediate circuit voltage and each include at least one inverter for powering at least one electric motor, in particular a synchronous motor or an asynchronous motor; and
- at least one buffer module PM for storing energy

may be at least electrically connected via a bus system, the bus system including

- at least two power cables (+,-) for carrying the intermediate circuit voltage; and
- a power cable BRC for electrically connecting the supply module(s) to the buffer module(s).

22. The converter system as recited in at least one of the preceding claims,
wherein the modules, such as buffer modules PM, drive modules AM, supply modules VM, and, if applicable, further modules each have an interface for electrical and mechanical connection to the bus system.

23. The converter system as recited in at least one of the preceding claims,
wherein the interface is constructed in the same manner in all of the modules.

24. A method for operating a buffer module in a converter system including
- at least one supply module VM, which provides a unipolar, intermediate circuit voltage;
- one or more drive modules AM, which may be powered from the intermediate circuit voltage and each include at least one inverter for powering at least one electric motor;
- at least one buffer module PM for storing energy;
wherein

- the intermediate circuit voltage is measured; and
- in response to the first critical value of the intermediate circuit voltage being exceeded, the buffer module PM is supplied with energy, when the overall regenerative power of first drive modules exceeds the motive power of second drive modules; and
- the buffer module feeds back energy to the modules powered by the intermediate circuit voltage, when the total motive power of drive modules exceeds the regenerative power.

25. The method as recited in Claim 24, wherein, in the case of a second critical value of the intermediate circuit voltage being exceeded, current flows through a braking resistor to dissipate energy, when the total regenerative power of first drive modules exceeds the motive power of second drive modules.

26. The method as recited in Claim 24 or 25, wherein the second and first critical values are identical.

27. A converter for implementing a method as recited in Claim 24, 25, or 26, the converter including a rectifier for generating intermediate circuit voltage and an inverter powered by the intermediate circuit voltage, wherein the converter is designed so that a capacitor not directly connected to the intermediate circuit voltage may be energized by an electronic circuit breaker in a controlled manner, as a function of the intermediate circuit voltage; and energy is releasable by the capacitor to the intermediate circuit; and the capacitor directly connected to the intermediate circuit and the capacitance of the capacitor are sized so that during motive operation at nominal load, with the capacitor directly connected to the intermediate circuit, the a.c. voltage component of the intermediate circuit voltage would be less than half as large as the a.c. voltage component with the capacitor removed.